

## CLAIMS

What is claimed is:

1. A plant container, comprising:  
a sidewall having a plurality of shoulders; and  
a base supported on the shoulders, the base having an upwardly facing surface  
with a plurality of radially directed channels.
2. The plant container of claim 1, wherein the sidewall and the base are separable.
3. The plant container of claim 2, wherein the sidewall is a flexible panel that is bent  
and fastened in a closed curvilinear shape.
4. The plant container of claim 3, wherein fastening the panel around the base  
constrains displacement of the base.
5. The plant container of claim 1, wherein the upwardly facing surface is convex.
6. The plant container of claim 5, wherein the convex surface has a shape selected  
from conical, semispherical, elliptical, and irregular.
7. The plant container of claim 5, wherein the convex surface has a perimeter and a  
center that is between 1 and 2 inches higher than the perimeter.
8. The plant container of claim 5, wherein the convex surface has a shape  
comprising a central arch and a surrounding semispherical region.
9. The plant container of claim 1, wherein the upwardly facing surface has a center  
and a perimeter, and wherein the channels extend over more than half the distance  
between the center and the perimeter.

10. The plant container of claim 1, wherein the plurality of shoulders are inwardly extending, outwardly extending, or combinations thereof.
11. The plant container of claim 1, wherein the base has a generally circular perimeter.
12. The plant container of claim 11, wherein the perimeter of the generally circular base has a plurality of projections.
13. The plant container of claim 1, wherein the plurality of shoulders are provided by a plurality of protuberances.
14. The plant container of claim 13, wherein the plurality of protuberances have a proximal opening in communication with a distal opening.
15. The plant container of claim 14, wherein the base has a perimeter with a plurality of projections that extend into the plurality of protuberances through the proximal openings.
16. The apparatus of claim 15, wherein the proximal openings are larger than the distal openings.
17. The plant container of claim 16, wherein the convex face has a shape selected from conical, elliptical, semi-spherical, and irregular.
18. The plant container of claim 16, wherein the convex face has an irregular shape comprising a central arch and a surrounding semi-spherical or frustoconical region.
19. The plant container of claim 16, wherein the channels extend over more than half the distance from the center of the base to the perimeter of the base.

20. The plant container of claim 19, wherein the channels are disposed to direct roots toward the plurality of protuberances.
21. The plant container of claim 20, wherein each channel has a sidewall that directs roots toward an individual protuberance.
22. The plant container of claim 20, wherein the channels extend into the proximal openings of the protuberances.
23. The plant container of claim 21, wherein the channels have a distal end with a deflecting curve.
24. The plant container of claim 21, wherein the individual protuberance is one of the plurality of protuberances that provide the plurality of shoulders.
25. The plant container of claim 21, wherein the individual protuberance is not one of the plurality of protuberances that provide the plurality of shoulders.
26. The plant container of claim 1, wherein the channels are between 0.1 and 1 inches tall.
27. The plant container of claim 1, wherein the channels are between 0.15 and 0.75 inches tall.
28. The plant container of claim 1, wherein the channels are between 0.25 and 0.5 inches tall.
29. The plant container of claim 1, further comprising a central dome directing roots outwardly.

30. The plant container of claim 1, wherein the channels are taller at a distal end than at a proximal end
31. The plant container of claim 13, wherein the center of the proximal opening is positioned higher than the center of the distal opening when the panel is positioned upright.
32. The plant container of claim 31, wherein the perimeter of the base has a plurality of projections that extend into the plurality of protuberances through the proximal opening.
33. The plant container of claim 31, wherein the convex face has a shape selected from conical, elliptical, semi-spherical, irregular, and combinations thereof.
34. The plant container of claim 31, wherein the convex face has an irregular shape comprising a central arch and a surrounding frustoconical or semi-spherical region.
35. The plant container of claim 31, wherein the channels extend over more than half the distance from the center of the base to the perimeter of the base.
36. The plant container of claim 29, wherein the channels are disposed to direct roots toward the plurality of protuberances.
37. The plant container of claim 36, wherein each channel has a sidewall that directs roots toward an individual protuberance.
38. The plant container of claim 37, wherein the individual protuberance is one of the plurality of protuberances that provide the plurality of shoulders.
39. The plant container of claim 37, wherein the individual protuberance is not one of the plurality of protuberances that provide the plurality of shoulders.

40. The plant container of claim 37, wherein the plurality of protuberances have a lower profile with a substantially horizontal region that receives the projections.
41. The plant container of claim 40, wherein the proximal opening is larger than the distal opening.
42. The plant container of claim 13, wherein the plurality of protuberances extend inward.
43. The plant container of claim 42, wherein the sidewall further comprises a plurality of outwardly extending protuberances having a proximal opening in communication with a distal opening.
44. The plant container of claim 43, wherein the perimeter of the base has a plurality of projections that extend into the plurality of outwardly extending protuberances through the proximal opening.
45. The plant container of claim 44, wherein the channels are disposed to direct roots toward the plurality of protuberances.
46. The plant container of claim 45, wherein each channel has a sidewall that directs roots toward an individual protuberance.
47. The plant container of claim 46, wherein the individual protuberance is one of the plurality of protuberances that provide the plurality of shoulders.
48. The plant container of claim 46, wherein the individual protuberance is not one of the plurality of protuberances that provide the plurality of shoulders.

49. The plant container of claim 43, wherein the convex face has a shape selected from conical, elliptical, semi-spherical, irregular, and combinations thereof.
50. The plant container of claim 43, wherein the convex face has an irregular shape comprising a central arch and a surrounding frustoconical region.
51. The plant container of claim 43, wherein the channels extend over more than half the distance from the center of the base to the perimeter of the base.
52. A plant container, comprising:
  - a base having an upwardly facing convex surface with a plurality of radially directed channels; and
  - a container sidewall extending upward around the perimeter of the base, wherein the sidewall includes a hole adjacent the plurality of radially-directed channels.
53. The plant container of claim 52, wherein the convex surface comprises a central arch and a surrounding frustoconical or semi-spherical region.
54. The plant container of claim 52, wherein the channels extend over more than half the distance from the center of the base to the perimeter of the base.
55. The plant container of claim 52, wherein the channels have a distal end with a deflecting curve.
56. The plant container of claim 52, wherein the channels extend above the surface by between 0.1 and 1 inches.
57. A base for inserting in a plant container, comprising:
  - a base having an upwardly facing surface including a plurality of radially directed channels, a deflecting element near a distal end of each channel, and a root-tip-trapping

element, wherein the deflecting element directs roots against a wall of the container at an angle that causes the root to deflect off the wall and into the root-tip-trapping element.

58. The plant container of claim 57, wherein the upwardly facing surface is convex.

59. The plant container of claim 58, wherein the convex surface has a shape selected from conical, semispherical, elliptical, and irregular.

60. A plant container, comprising:

a container sidewall; and  
a base secured to the container sidewall, the base having an upwardly facing surface with a plurality of radially directed channels.

61. The plant container of claim 60, wherein the base has protrusions received within recesses in the container sidewall.

62. The plant container of claim 60, wherein the channels are substantially free from obstructions to radial root growth.

63. The plant container of claim 60, wherein the plurality of channels include at least eight channels.

64. The plant container of claim 60, wherein the container sidewall comprises protuberances and the channels are directed toward the protuberances.